# JURISDICTIONAL DELINEATION REPORT FOR THE FLUME TRAIL PROJECT

■ County of San Diego Department of Parks and Recreation ■ July 2012

ICF INTERNATIONAL

# JURISDICTIONAL DELINEATION REPORT FOR THE FLUME TRAIL PROJECT

**PREPARED FOR:**

County of San Diego
Department of Parks and Recreation
5500 Overland Avenue, Suite 410
San Diego, California 92123
Contact: Ms. Jennifer Price

**PREPARED BY:**

ICF International
9775 Businesspark Avenue, Suite 200
San Diego, California 92131

July 2012

ICF INTERNATIONAL

ICF International. 2012. Jurisdictional Delineation Report for the Flume Trail Project. July (ICF 00026.12) San Diego, CA. Prepared for County of San Diego Parks and Recreation, San Diego, CA.

# Contents

# Acronyms and Abbreviations

| | |
|---|---|
| CDFG | California Department of Fish and Game |
| CFR | Code of Federal Regulations |
| County | County of San Diego |
| CWA | Clean Water Act |
| DPR | Department of Parks and Recreation |
| EPA | U.S. Environmental Protection Agency |
| FAC | facultative |
| FACW | facultative wetland |
| GPS | Global Positioning System |
| ICF | ICF International |
| JDs | jurisdictional delineations |
| MSCP | Multiple Species Conservation Program |
| OBL | obligate |
| OHWM | ordinary high-water mark |
| Porter-Cologne | Porter-Cologne Water Quality Control Act |
| project | Flume Trail Project |
| RGL | Regulatory Guidance Letter |
| RPWs | Relatively permanent waters |
| RWQCB | Regional Water Quality Control Board |
| SS | state streambeds |
| SWANCC | Solid Waste Agency of North Cook County |
| SWRCB | State Water Resources Control Board |
| TNWs | traditional navigable waters |
| USACE | United States Army Corps of Engineers |
| USC | United States Code |
| USDA | US Department of Agriculture |
| WoS | Waters of the State |
| WoUS | Waters of the U.S. |

# Executive Summary

ICF International (ICF) was retained by the County of San Diego (County) Department of Parks and Recreation (DPR) to conduct a routine-level delineation of jurisdictional waters and wetlands in the vicinity of the proposed Flume Trail that would connect to the recently constructed El Monte Trail at El Monte Park in Lakeside, California.

The proposed project would construct approximately 2.5 miles of trail within an existing 10-foot wide bench cut of the 50-foot wide, County-owned parcel of the historic flume alignment. If needed to avoid or minimize impacts to existing drainage channels, an additional 20-foot-wide trail easement located immediately adjacent to the southern boundary of the historic flume alignment may be used.

The purpose of this delineation was to identify the locations and extent of jurisdictional waters along the proposed trail alignment in order to avoid or minimize impacts to jurisdictional resources resulting from construction of the proposed trail. Relevant jurisdictions include federal waters regulated by the United States Army Corps of Engineers (USACE) as Waters of the U.S. (WoUS) or USACE wetlands, state waters regulated by the Regional Water Quality Control Board (RWQCB) as Waters of the State (WoS), and state streambeds (SS) regulated by the California Department of Fish and Game (CDFG).

A total of 12 ephemeral drainage features were identified along the proposed alignment of the Flume Trail, all of which were determined to be non-wetland waters under the joint jurisdiction of the USACE, CDFG, and RWQCB. These unnamed drainage features measure 2-feet to 5-feet wide and are likely direct tributaries to the San Diego River. Construction of a 10-foot-wide trail along the proposed alignment would result in a total of 340 square feet of impacts to drainage features determined to be regulated as USACE WoUS, RWQCB WoS, and CDFG SS. If a structural crossing is constructed at drainage feature #7, impacts to approximately 30 square feet would be avoided for a total impact of 310 square feet. Alternatively, if additional trail easements are obtained and the alternative trail alignment near drainage features 7 and 8 is constructed, impacts to a approximately 30 square feet would be avoided (for a total of 310 square feet of impacts) as the proposed crossing would occur downstream where features 7 and 8 merge into one approximately 4-foot-wide feature.

Potential impacts to the identified drainage features may result from foot, bicycle, and equestrian traffic associated with the use of the proposed trail in its finished condition, and may require a nationwide 404 permit from USACE, a CDFG section 1602 Streambed Alteration Agreement (SAA) from CDFG, and a Water Quality Waiver or 401 Certification from the RWQCB.

Since the drainage features within the project area lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore, construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological functions and values of the streambeds. The construction of the trail will not alter the topography or hydrology of the streambed, and will allow for continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

# Chapter 1
# Introduction

This report documents a routine-level jurisdictional delineation performed along the proposed alignment of a 2.5-mile trail that would follow the historic flume alignment and connect to the recently constructed El Monte Trail at the County of San Diego (County) Department of Parks and Recreation's (DPR's) El Monte Park. The delineation's purpose was to identify potential Section 404 wetlands, State Wetlands, Waters of the United States (WoUS), Waters of the State (WoS), and state streambed (SS) subject to California Fish and Game Code 1600 within and adjacent to the proposed trail alignment.

This preliminary jurisdictional delineation report describes the study area and existing conditions, discusses the regulations that govern the area, outlines the methodology used to conduct the delineation, and presents the results of the study. These results show the potentially jurisdictional resources found within the project site that may be subject to regulation by the USACE, State Water Resources Control Board (SWRCB), and CDFG.

## Project Description

The proposed Flume Trail Project (project) would construct approximately 2.5 miles of trail within an existing 10-foot wide bench cut of the 50-foot wide, County-owned parcel of the historic flume alignment. If needed to avoid or minimize impacts to existing drainage channels, an additional 20-foot-wide trail easement located immediately adjacent to the southern boundary of the historic flume alignment may be used.

## Project Location

The proposed Flume Trail would connect to the recently constructed El Monte Park Trail located in the County's El Monte Park in Lakeside, California (Figures 1 and 2). The El Monte Park Trail is located south of El Monte Road, approximately 3.5 miles northeast of the intersection of El Monte Road and Lake Jennings Park Road. The project is located within the approved south county subarea of the County's Multiple Species Conservation Program (MSCP).

## Environmental Setting

The proposed Flume Trail alignment occurs at an elevation ranging from approximately 650 to 900 feet above mean sea level and generally runs in an east-west direction south of El Monte Park. The proposed Flume Trail would connect to the recently constructed and well-maintained El Monte Park Trail. The study area includes the 50-foot for the delineation is characterized by the overgrown bench cut along the historic flume alignment and surrounding vegetation, which consists primarily of burned and unburned southern mixed chaparral, burned coastal sage scrub, coast live oak woodland, and non-native grassland.

The proposed project site is underlain by Cieneba-Fallbrook rocky sandy loam (30-65% slopes, eroded) and Cieneba coarse sandy loam (30-65% slopes, eroded). The Cieneba series is characterized as shallow to very shallow, excessively drained coarse sandy loams formed from granitic rock (Bowman 1973).

# Chapter 2
# Regulatory Background

The following sections summarize the regulations imposed on each type of jurisdictional feature potentially present in the vicinity of the proposed Flume Trail.

# U.S. Army Corps of Engineers Regulated Activities

USACE-regulated activities under Section 404 of the Clean Water Act (CWA) involve a discharge of dredged or fill material into WoUS. A discharge of fill material includes, but is not limited to, grading, placing riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material into WoUS. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, performing some drainage channel maintenance activities, constructing temporary mining and farm/forest roads, and excavating without stockpiling.

## Waters of the U.S.

WoUS, as defined in the Code of Federal Regulations (CFR) title 33, section 328.3, include all waters or tributaries to waters, such as lakes, rivers, intermittent and perennial streams, mudflats, sand flats, natural ponds, wetlands, wet meadows, and other aquatic habitats.

Frequently, a WoUS (with at least intermittently flowing water or tidal influences) is demarcated by the ordinary high-water mark (OHWM), defined in CFR 328.3(e) as:

> that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Where an OHWM is present, waters may be defined as WoUS when connectivity is determined to be present.

## Wetlands

According to the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Federal Interagency Committee for Wetland Delineation 1989), three criteria must be satisfied to classify an area as a jurisdictional wetland: (1) a predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation); (2) soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and (3) permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology) (Environmental Laboratory 1987).

USACE will continue to assert jurisdiction over:

1. traditional navigable waters (TNWs) and their adjacent wetlands;

2. nonnavigable tributaries of TNWs that are relatively permanent (e.g., tributaries that typically flow year-round or have a continuous flow at least seasonally) and wetlands that directly abut such tributaries (e.g., not separated by uplands, berm, dike, or similar feature) (note: relatively permanent waters [RPWs] do not include ephemeral tributaries, which flow only in response to precipitation, and intermittent streams, which do not typically flow year-round or have continuous flow at least seasonally [e.g., typically three months]); and
3. non-RPWs if determined (in a fact-specific analysis) to have a significant nexus with a TNW, including nonnavigable tributaries that do not typically flow year-round or have continuous flow at least seasonally, wetlands adjacent to such tributaries, and wetlands adjacent to but not directly abutting a relatively permanent nonnavigable tributary. Absent a significant nexus, jurisdiction is lacking.

## Approved Jurisdictional Determinations

An approved JD is an official USACE determination that jurisdictional or navigable WoUS are either present or absent on a particular site. The approved JD precisely identifies the limits of those waters on the project site. Approved JDs are documented in accordance with Regulatory Guidance Letter (RGL) 07-01 and require the use of the approved JD form (*Rapanos* form). An approved JD form is completed for each reach of each tributary on the project site and is reviewed by USACE and EPA. Legally, an approved JD represents USACE's official determination that the JD's findings are correct, is valid for five (5) years, can be used and relied upon in a CWA citizen's lawsuit if its legitimacy is challenged (except under extraordinary circumstances), and can be immediately appealed (33 CFR Part 331).

## Preliminary Jurisdictional Determinations

Under RGL 08-02, dated June 26, 2008, USACE established an alternative to the approved JD process: the "preliminary JD." A preliminary JD is a non-binding written indication that there may be WoUS, including wetlands, on a project site and identifies the approximate location of these features. Preliminary JDs are used when a landowner, permit applicant, or other affected party elects to voluntarily waive or set aside questions regarding CWA jurisdiction over a particular site, usually in the interest of allowing the landowner to move ahead expeditiously to obtain 404 authorization where the party determines that it is in his or her best interest to do so. A preliminary JD is not an official determination regarding the jurisdictional status of potentially jurisdictional features and has no bearing on approved JDs. A preliminary JD cannot be used to confirm the absence of jurisdictional waters or wetlands, is advisory in nature, and cannot be appealed. It is considered "preliminary" because a recipient can later request an approved JD if one is necessary or appropriate.

Finally, although a preliminary JD may be chosen by the applicant, the district engineer reserves the right to use an approved JD where warranted. A preliminary JD is documented using the preliminary JD form, provided as Attachment 1 to RGP 08-02. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD treats all waters and wetlands that would be affected in any way except by the permitted activity as if they are jurisdictional. This report presents a preliminary jurisdictional determination.

### 2011 Draft Clean Water Act Guidance

On April 27, 2011, USACE and EPA issued draft guidance for determining jurisdiction under the CWA. The guidance supersedes the previous guidance from 2003 regarding *SWANCC* (68 Federal Register 1991–1995) and the 2007 *Rapanos* guidance. This document reiterated the guidance issued under the *Rapanos* decision, asserting that the following waters are protected by the CWA:

- Traditional navigable waters
- Interstate waters
- Wetlands adjacent to either traditional navigable waters or interstate waters
- Non-navigable tributaries to traditional navigable waters that are relatively permanent (meaning they contain water at least seasonally)
- Wetlands that directly abut relatively permanent waters

The guidance further clarifies the criteria for defining TNWs consistent with previous guidance. In addition, a significant nexus evaluation is required for the "other waters" category of the regulations (see item 3 in Section 2.1.1, above). The guidance divides these waters into two categories (i.e., those that are physically proximate to other jurisdictional waters and those that are not) and discusses how each category should be evaluated.

# State Water Resources Control Board Regulated Activities/Regional Water Quality Control Board

In California, the SWRCB and nine Regional Water Quality Control Boards (RWQCB) regulate activities within state and federal waters under Section 401 of the CWA and the state Porter-Cologne Act. The SWRCB is responsible for setting statewide policy, coordinating and supporting the RWQCB efforts, and reviewing petitions that contest RWQCB actions. Each semi-autonomous RWQCB sets water quality standards, issues 401 certifications and waste discharge requirements, and take enforcement action for projects occurring within their boundary. However, when a project crosses multiple RWQCB jurisdictional boundaries, the SWRCB becomes the regulating agency for both of these acts and issues project permits.

## Section 401 of the Clean Water Act

Section 401 of the CWA requires that

> any applicant for a federal permit for activities that involve a discharge to waters of the United States shall provide the federal permitting agency a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act.

Therefore, in California, before USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification or waiver from the RWQCB or SWRCB, as applicable. Under Section 401 of the CWA, the SWRCB/RWQCB regulates at the state level all activities that are regulated at the federal level by USACE. Therefore, SWRCB/RWQCB jurisdiction usually matches the jurisdictional boundaries for WoUS (mapped at the OHWM). However, if waters

are determined not to be WoUS, they may still be subject to SWRCB/RWQCB jurisdiction based on the Porter-Cologne Act.

## Porter-Cologne Act

The RWQCB regulates activities that would involve "discharging waste, or proposing to discharge waste, within any region that could affect waters of the state" (California Water Code 13260[a]), pursuant to provisions of the state Porter-Cologne Act. Waters of the State (WoS) are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050 [e]). Such waters may include waters not subject to regulation under Section 404 (i.e., isolated features).

# California Department of Fish and Game Regulated Activities

Under recently revised California Fish and Game Code, Sections 1600–1616, CDFG has the authority to regulate work that will substantially divert or obstruct the natural flow—or substantially change or use any material from the bed, channel, or bank—of any river, stream, or lake. CDFG also has the authority to regulate work that will deposit or dispose of debris, wastewater, or other material containing crumbled, flaked, or ground pavement that may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement and is applicable to all work involving state or local government discretionary approvals.

## Section 1602 of the California Fish and Game Code

The California Fish and Game Code mandates that

> it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity.

CDFG jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of (1) definable bed and banks and/or (2) existing fish or wildlife resources. Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function hydrologically as part of the riparian system. Historical court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdictional.

# Chapter 3
# Methodology

## Project Research

To prepare for a field visit, delineators obtained an aerial photograph (1 inch = 200 feet) of the site and used it to identify potential site features such as vegetation types, topographic changes, or visible drainage patterns.

Additionally, the US Department of Agriculture (USDA) soil survey map (Bowman 1973) was reviewed to identify the soil series that were mapped in the study area.

## Field Delineation Methods

ICF biologists Dale Ritenour and Doug Allen completed the jurisdictional delineation along the proposed Flume Trail alignment on May 21, 2012. Potential features identified were then investigated further to determine whether they met the criteria of a potentially jurisdictional feature. All features meeting the USACE guidance criteria were delineated. The study area for the delineation included the 50-foot-wide County-owned portion of the historic flume alignment and the adjacent 20-foot-wide trail easement. In addition, to the extent feasible from within the 70-foot-wide study area, the delineators collected data regarding the presence or absence of jurisdictional resources upstream and downstream of the 70-foot-wide study area. The delineation was not conducted during the rainy season and the region received no significant rainfall within the last several weeks before the delineation was conducted. Rainfall patterns during May 2012 were not atypical for that month.

Delineated boundaries of all features identified within the study area were recorded using Trimble® GeoXT Global Positioning System (GPS) technology with sub-meter accuracy. Vegetation within the vicinity of the proposed Flume Trail was mapped within the study area and a 100-foot buffer on a 1"=100' aerial photograph (Figure 3).

All features identified during the field visit were recorded through a routine-level wetland delineation. Non-wetland jurisdictional WoUS were identified during the jurisdictional delineation; no jurisdictional wetlands were identified within or immediately adjacent to the survey area.

ICF's methods for delineating federal wetlands follow the guidelines set forth by the USACE in the *Arid West Manual* (USACE 2008b). The routine onsite determination method can be used to gather field data at potential wetland areas for most projects. Visual observations of vegetation types and hydrology are used to locate areas for evaluation. Then, at each evaluation area, several parameters are considered to determine whether the sample point is within a wetland.

Three criteria normally must be fulfilled in order to classify an area as a jurisdictional USACE wetland: (1) a predominance of hydrophytic vegetation, (2) the presence of hydric soils, and (3) the presence of wetland hydrology. Details of the application of these techniques are described below.

- **Hydrophytic Vegetation.** The hydrophytic vegetation criterion is satisfied at a location if greater than 50% of all the dominant species present within the vegetation unit have a wetland indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) (USACE 1987). An *OBL indicator status* refers to plants that have a 99% probability of occurring in wetlands under natural conditions. A *FACW indicator status* refers to plants that usually occur in wetlands (67 to 99% probability) but are occasionally found elsewhere. A *FAC indicator status* refers to plants that are equally likely to occur in wetlands or elsewhere (estimated probability 34 to 66% for each). The wetland indicator status used for this report follows the *National List of Plant Species that Occur in Wetlands: California (Region 0)* (U.S. Fish and Wildlife Service 1988).
- **Hydric Soils.** The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the *Munsell Soil Color Charts* (Kollmorgen Corporation 1975).
- **Wetland Hydrology.** The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987, 2008a, 2008b).

Areas meeting all three of these parameters are generally designated as USACE wetlands. If the delineator cannot confirm the presence of all three parameters, but nevertheless strongly believes the area to be a wetland, supporting information can be added to the delineation data sheet or report regarding the delineator's determination.

## Delineation of Potential Non-Wetland Waters of the U.S.

ICF methods for the delineation of non-wetland WoUS was based on indicators for OHWM, following established criteria outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), and *A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States* (USACE 2008b).

All jurisdictional features within the study area were determined by the presence of OHWM indicators. This field guide presents a method for delineating the lateral extent of the WoUS in the Arid West using stream geomorphology and vegetation response to the dominant stream discharge. ICF biologists used this guidance in the field to determine the OHWM for all potentially jurisdictional nonwetland waters.

The field guide describes physical evidence that should be used to ascertain the lateral limits of jurisdiction; generally more than one physical indicator or other means for determining the OHWM is used. The following physical indicators of OHWM were used in the field:

- Natural line impressed on the bank
- Shelving
- Destruction of terrestrial vegetation

- Presence of litter and debris
- Wracking
- Vegetation matted down, bent, or absent
- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Bed and banks
- Water staining
- Change in plant community.

Evaluation of SWRCB/RWQCB jurisdiction followed guidance from Section 401 of the CWA and follows the same jurisdictional areas as USACE, unless an isolated water is determined to be present. Isolated water features are not considered jurisdictional under USACE, but are still delineated using the OHWM or wetted area. Isolated water bodies are considered SWRCB/RWQCB jurisdictional under the Porter-Cologne Act.

## Delineation of CDFG Jurisdiction

Evaluation of California Fish and Game Code jurisdiction followed the guidance of standard practices by CDFG personnel. CDFG jurisdiction was delineated by measuring the width of top of bank of watercourses, which equaled the bed and bank limits in these small systems, all of which are deeply incised under the currently existing condition. Riparian vegetation was not observed within the study area.

Chapter 4
# Results and Jurisdictional Impacts

## Discussion

A total of 12 ephemeral drainage features were observed along the proposed alignment of the Flume Trail (Figures 4a-4e; Table 1). As these areas did not support any hydrophytic vegetation (one of the three criteria needed to qualify as a wetland), soil pits were not dug.

**Table 1. Jurisdictional Delineation Summary**

| Feature | Feature Width | U.S. and State Non-Wetland Waters (square feet/acres) | U.S. and State Wetland Waters (square feet) | U.S. and State Non-Wetland Waters Linear Feet | CDFG Streambed (square feet/acres) | CDFG Riparian (square feet) | CDFG Linear Feet |
|---|---|---|---|---|---|---|---|
| Drainage 1 | 2 | 196/0.004 | 0.0 | 98 | 96/0.004 | 0.0 | 98 |
| Drainage 2 | 3 | 240/0.005 | 0.0 | 80 | 240/0.005 | 0.0 | 80 |
| Drainage 3 | 2 | 172/0.004 | 0.0 | 86 | 172/0.004 | 0.0 | 86 |
| Drainage 4 | 3 | 228/0.005 | 0.0 | 76 | 228/0.005 | 0.0 | 76 |
| Drainage 5 | 3 | 222/0.005 | 0.0 | 74 | 222/0.005 | 0.0 | 74 |
| Drainage 6 | 3 | 222/0.005 | 0.0 | 74 | 222/0.005 | 0.0 | 74 |
| Drainage 7 | 3 | 237/0.005 | 0.0 | 79 | 237/0.00 | 0.0 | 79 |
| Drainage 8 | 4 | 312/0.007 | 0.0 | 78 | 312/0.007 | 0.0 | 78 |
| Drainage 9 | 2 | 142/0.003 | 0.0 | 71 | 142/0.003 | 0.0 | 71 |
| Drainage 10 | 2 | 156/0.004 | 0.0 | 78 | 156/0.004 | 0.0 | 78 |
| Drainage 11 | 2 | 154/0.004 | 0.0 | 77 | 154/0.004 | 0.0 | 77 |
| Drainage 12 | 5 | 400/0.009 | 0.0 | 80 | 400/0.009 | 0.0 | 80 |
| **Total** | **--** | **2,681 (0.060 acre)** | **0.0** | **951** | **2,681 (0.060 acre)** | **0.0** | **951** |

Other erosional features were observed along the proposed alignment of the Flume Trail. These areas did not exhibit a defined bed and bank within the survey area and no other indicators of wetland hydrology or hydrophytic vegetation were observed. Therefore, these areas would not fall under the jurisdiction of the USACE, CDFG, or RWQCB and are not discussed further in this report.

## Vegetation

The bench cut of the historic flume alignment was previously cleared of vegetation; however, it is currently overgrown. The proposed alignment of the Flume Trail traverses through non-native grasslands, oak woodlands, burned and unburned southern mixed chaparral, burned coastal sage scrub, and disturbed habitat. Riparian vegetation communities were not observed within or immediately adjacent to the 70-foot-wide survey area.

## Hydrology

A total of 12 ephemeral drainage features were observed to cross the proposed alignment of the Flume Trail. It is likely that all these features eventually connect to the San Diego River. OHWM characteristics observed within these drainage features during the site visit included: presence of bed and bank and a natural line impressed on the bank. The low-flow bed-and-bank channels average approximately 2 to 5 feet wide. Based on direct observations during the field delineation, these 12 drainages were determined to clearly convey flows (at least intermittently) and they were determined not to support jurisdictional wetlands.

## Soils

The soils surrounding and within the 12 drainage features are mapped as Cieneba-Fallbrook rocky sandy loam (30-65% slopes, eroded) and Cieneba coarse sandy loam (30-65% slopes, eroded). The Cieneba series is characterized as shallow to very shallow, excessively drained coarse sandy loams formed from granitic rock (Bowman 1973).

# Determination

The three criteria of hydrophytic vegetation, hydrology, and soils necessary to delineate an area as a wetland were all absent from the 12 identified drainage features; therefore, none of the drainage features were identified as wetlands. All 12 drainage features contain bed and banks and convey intermittent flows. The 12 drainage features feed into the San Diego River valley and are assumed to have direct surface connection to the San Diego River, a relatively Permanent Water (RPW) tributary to the Pacific Ocean, a Traditionally Navigable Water (TNW). Private property outside of the survey area was not accessed, which would be necessary to definitively establish a continuous OHWM and bed-and-bank connection to the San Diego River. The 12 drainage features would be regulated by the USACE as non-wetland WoUS and the RWQCB as WoS.

The 12 drainage features had bed and bank features and intermittently convey flows to the San Diego River. These drainages contain bed-and-bank features and contribute flows to fish and wildlife habitat for at least a portion of the year, and therefore would be subject to regulation by CDFG as State Streambeds.

# Impact Analysis

Construction of a 10-foot-wide trail along the proposed alignment would result in a total of 340 square feet of impacts to drainage features determined to be regulated as USACE WoUS, RWQCB WoS, and CDFG SS (Table 2). If a structural crossing is constructed at drainage feature #7, impacts to approximately 30 square feet would be avoided for a total impact of 310 square feet. Alternatively, if additional trail easements are obtained and the alternative trail alignment near drainage features 7 and 8 is constructed, impacts to a approximately 30 square feet of jurisdictional features would be avoided (for a total of 310 square feet of impacts) as the proposed crossing would occur downstream where features 7 and 8 merge into a single approximately 4-foot-wide feature.

**Table 2: Impacts to Jurisdictional Features**

| Feature | USACE non-wetland WoUS/RWQCB WoS/CDFG SS (Linear ft/sq.ft.) | | |
|---|---|---|---|
| | Proposed Alignment | Structural Crossing Alternative | Alternate Alignment |
| Drainage 1 | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. |
| Drainage 2 | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. | 10 ft/ 30 sq.ft. |
| Drainage 3 | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. | 10 ft/ 20 sq.ft. |
| Drainage 4 | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. |
| Drainage 5 | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. |
| Drainage 6 | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. | 10 ft/30 sq.ft. |
| Drainage 7 | 10 ft/30 sq.ft. | 0 | 0 |
| Drainage 8 | 10 ft/40 sq.ft. | 10 ft/40 sq.ft. | 10 ft/40 sq.ft. |
| Drainage 9 | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. |
| Drainage 10 | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. |
| Drainage 11 | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. | 10 ft/20 sq.ft. |
| Drainage 12 | 10 ft/50 sq.ft. | 10 ft/50 sq.ft. | 10 ft/50 sq.ft. |
| Total | 120 ft./340 sq.ft. (0.008 acre) | 110 ft./310 sq.ft. (0.007 acre) | 110 ft./310 sq.ft. (0.007 acre) |

Potential impacts to the identified drainage features may result from foot, bicycle, and equestrian-traffic associated with the use of the proposed trail in its finished condition, and may require a nationwide 404 permit from USACE, a CDFG section 1602 Streambed Alteration Agreement (SAA) from CDFG, and a Water Quality Waiver or 401 Certification from the RWQCB.

Since the drainage features within the project area lack wetland vegetation, the construction and presence of a trail through these features would not affect wetland vegetation; therefore, construction of the proposed trail would not result in the net loss of jurisdictional wetlands, and will not substantially alter the biological functions and values of the streambeds. The construction of the

trail will not alter the topography or hydrology of the streambed, and will allow for continued water flow through the area. Therefore, compensatory mitigation is not anticipated to be required.

# Chapter 5
# References


Bowman, R. H. 1973. *Soil Survey of the San Diego Area, Parts I and II.* USDA, Soil Conservation Service. Available: http://soildatamart.nrcs.usda.gov/Manuscripts/CA638/0/part1.pdf.

Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual.* Technical Report Y087-1, Environmental Laboratory, Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi.

Federal Interagency Committee for Wetland Delineation. 1989. *Federal Manual for Identifying and Delineating Jurisdictional Wetlands.* Available: http://library.fws.gov/Wetlands/interagency_wetland_delineation_manual.pdf. January.

Holland, R. F. 1986**.** Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, Nongame Heritage Program, Department of Fish & Game, Sacramento, Calif. 156 pp.

Kollmorgen Corporation. 1975. *Munsell Soil Color Charts*. Baltimore, MD: Macbeth Division of Kollmorgen Corporation.

U.S. Army Corps of Engineers (USACE). 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.* Edited by J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

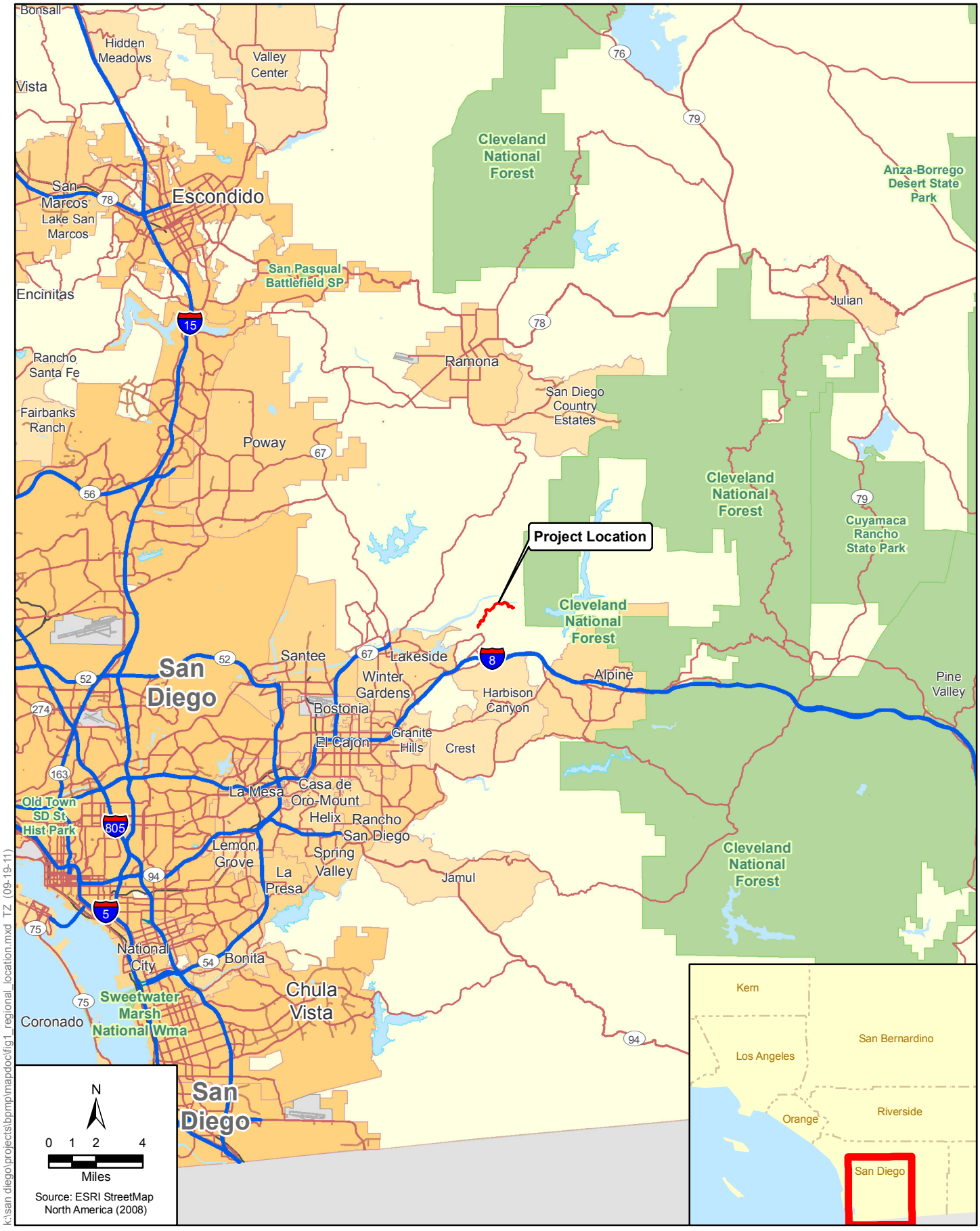
———. 2008b. *A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States: A Delineation Manual*. Available: http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf. August.

———. 1987. *Corps of Engineers Wetland Delineation Manual*. Environmental Laboratory. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Waterways Experiment Station.

U.S. Department of Agriculture (USDA), Natural Resources Conservation Service. 2010. Field Indicators of Hydric Soils in the United States, Version 7.0. L.M. Vasilas, G.W. Hurt, and C.V Noble (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

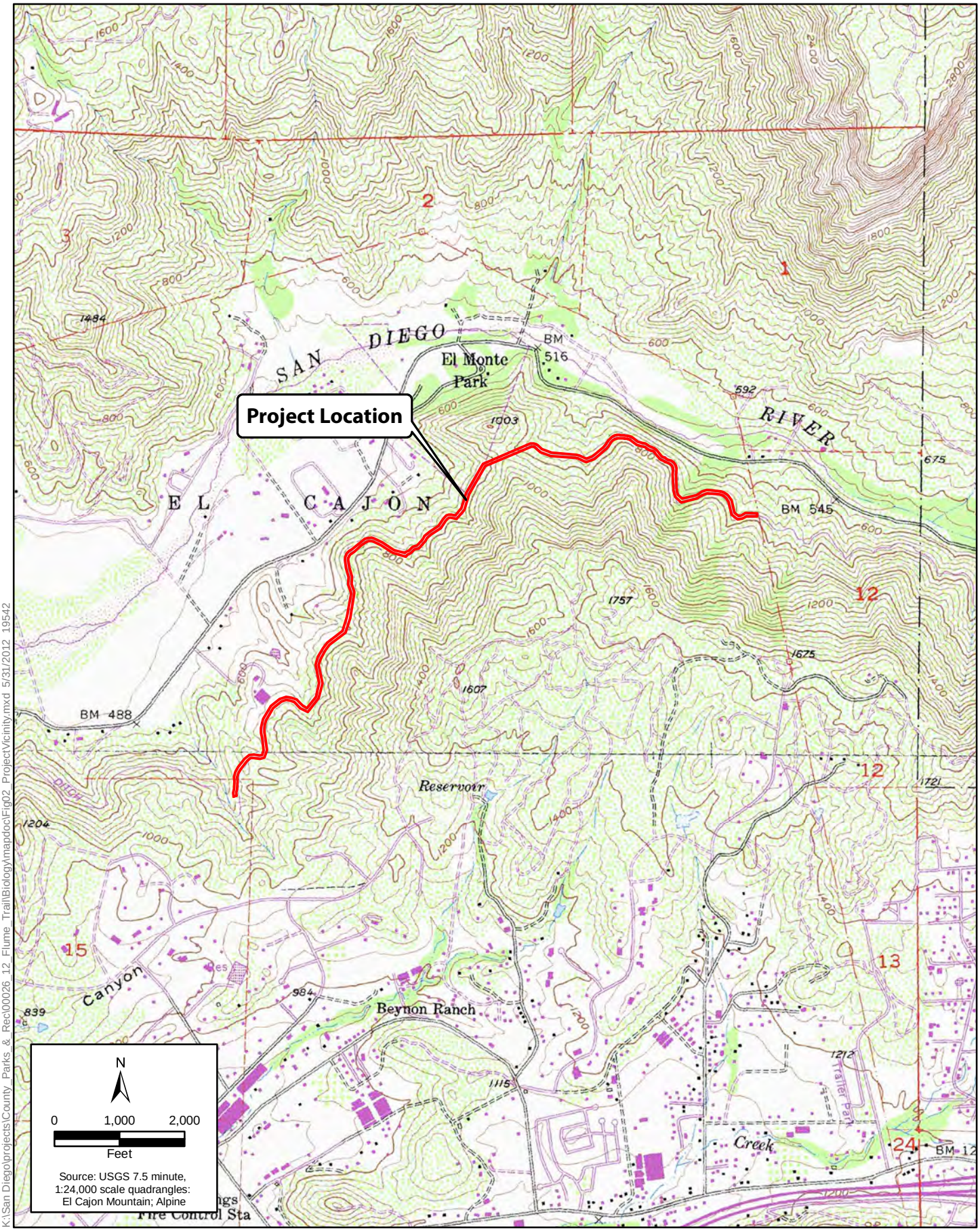
U.S. Fish and Wildlife Service (USFWS). 1988. *National List of Wetlands Plants.* Available: https://rsgis.crrel.usace.army.mil/NWPL_CRREL/docs/fws_lists/list88.html

# Appendix A
# Figures



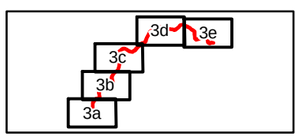

ICF INTERNATIONAL

**Figure 1**
**Regional Location**
**County Department of Parks and Recreation Flume Trail**




K:\San Diego\projects\County_Parks_&_Rec\00026_12_Flume_Trail\Biology\mapdoc\Fig02_ProjectVicinity.mxd 5/31/2012 19542

**Figure 2**
**Project Vicinity**
**County Department of Parks and Recreation Flume Trail**


K:\San Diego\projects\County_Parks_&_Rec\00026.12_Flume_Trail\Biology\mapdoc\Field_Maps_JD.mxd 5/18/2012 19542

**Figure 3a**
**Vegetation Communities**
**County Department of Parks and Recreation Flume Trail**

EL MONTE RD

**Legend**

- 50-ft Wide County-Owned Historic Flume Alignment
- 20-ft Trail Easement

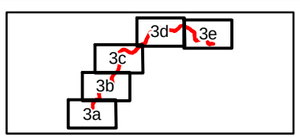
Vegetation Communities

- 11000 Disturbed Habitat (DH)
- 12000 Urban/Developed (DEV)
- 18100 Agriculture (AG)
- 32501 Coastal Sage Scrub-Burned (CSS)
- 37120 Southern Mixed Chaparral (SMC)
- 37120 Southern Mixed Chaparral-Burned (SMC)
- 42200 Non-Native Grassland (NNG)
- 71160 Coast Live Oak Woodland (CLOW)

N

0 100 200 Feet

Source: ESRI Imagery, 2010.




K:\San Diego\projects\County_Parks_&_Rec\000026_12_Flume_Trail\Biology\mapdoc\Field_Maps_JD.mxd 5/18/2012 19542

**Figure 3b**
**Vegetation Communities**
**County Department of Parks and Recreation Flume Trail**



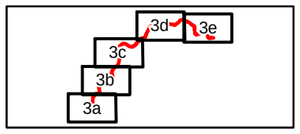




**Figure 3c**
**Vegetation Communities**
**County Department of Parks and Recreation Flume Trail**

EL MONTE RD

**Legend**

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

Vegetation Communities

11000 Disturbed Habitat (DH)

12000 Urban/Developed (DEV)

18100 Agriculture (AG)

32501 Coastal Sage Scrub-Burned (CSS)

37120 Southern Mixed Chaparral (SMC)

37120 Southern Mixed Chaparral-Burned (SMC)

42200 Non-Native Grassland (NNG)

71160 Coast Live Oak Woodland (CLOW)

N

0 100 200 Feet

Source: ESRI Imagery, 2010.

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps 3D.mxd 5/19/2012 19542

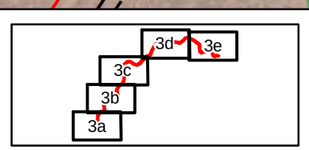
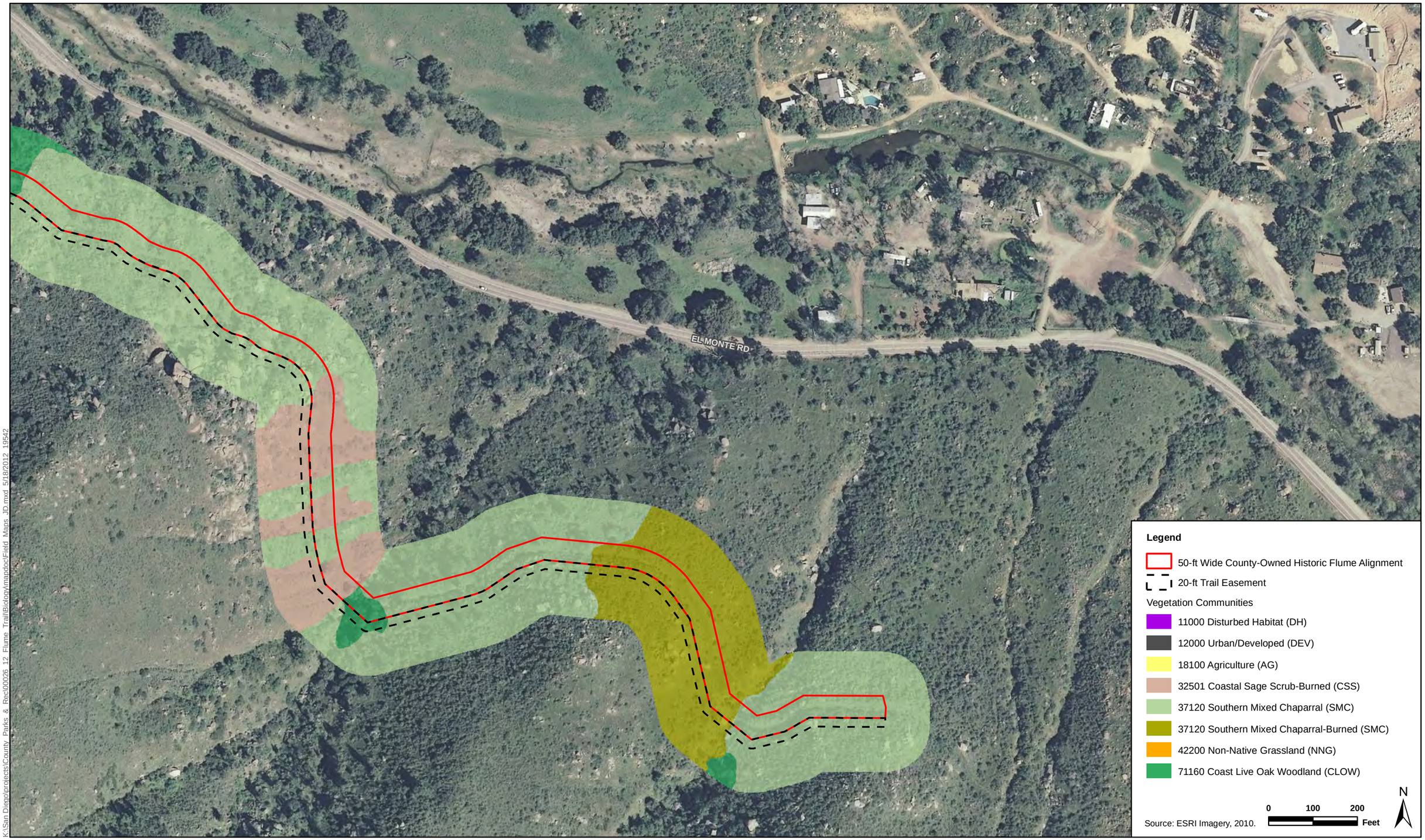



**Figure 3d**
**Vegetation Communities**
**County Department of Parks and Recreation Flume Trail**




K:\San Diego\projects\County_Parks_&_Rec\00026.12_Flume_Trail\Biology\mapdoc\Field_Maps_JD.mxd 5/18/2012 19542

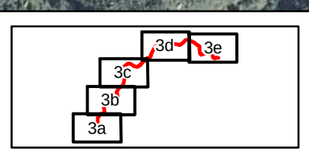



**Figure 3e**
**Vegetation Communities**
**County Department of Parks and Recreation Flume Trail**

**Legend**

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

Drainage Feature #1 (2 feet wide)

CIRCA VALLE VERDE

KINGFISHER CREEK RD

N

0 200 400

Feet

K:\San Diego\projects\County_Parks_&_Rec\00026_12_Flume_Trail\Biology\Mapdoc\Field_Maps_JD.mxd 5/18/2012 19542

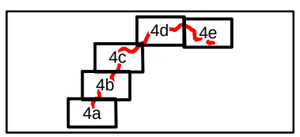



**Figure 4a**
**Jurisdictional Delineation**
**County Department of Parks and Recreation Flume Trail**

**Legend**

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

Drainage Feature #3 (2 feet wide)

Drainage Feature #2 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County_Parks_&_Rec\000026_12_Flume_Trail\Biology\mapdoc\Field_Maps_JD.mxd 5/18/2012 19542

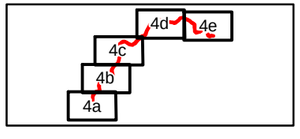



**Figure 4b**
**Jurisdictional Delineation**
**County Department of Parks and Recreation Flume Trail**

**Legend**

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

HAZY MEADOWS LN

EL MONTE RD

Drainage Feature #6 (3 feet wide)

Drainage Feature #5 (3 feet wide)

Drainage Feature #4 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

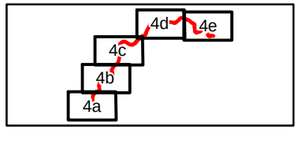



**Figure 4c**
**Jurisdictional Delineation**
**County Department of Parks and Recreation Flume Trail**

**Legend**

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #9 (2 feet wide)

Drainage Feature #10 (2 feet wide)

Drainage Feature #8 (4 feet wide)

Drainage Feature #7 (3 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps 3D.mxd 5/19/2012 19542

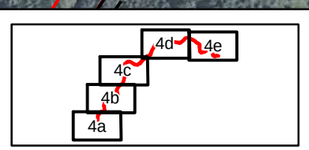



**Figure 4d**
**Jurisdictional Delineation**
**County Department of Parks and Recreation Flume Trail**

**Legend**

50-ft Wide County-Owned Historic Flume Alignment

20-ft Trail Easement

USACE Waters of the US/RWQCB Waters of the State/CDFG Streambed

Source: ESRI Imagery, 2010.

EL MONTE RD

Drainage Feature #11 (2 feet wide)

Drainage Feature #12 (5 feet wide)

N

0 200 400

Feet

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Biology\mapdoc\Field Maps JD.mxd 5/18/2012 19542

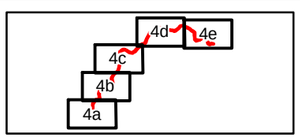



**Figure 4e**
**Jurisdictional Delineation**
**County Department of Parks and Recreation Flume Trail**

# Appendix B
# Feature Photographs

Photograph 1 Feature 1, view facing north.

Photograph 2 Feature 2, view facing east.

Photograph 3 Feature 3, view facing south.

Photograph 4 Feature 6, view facing northwest.

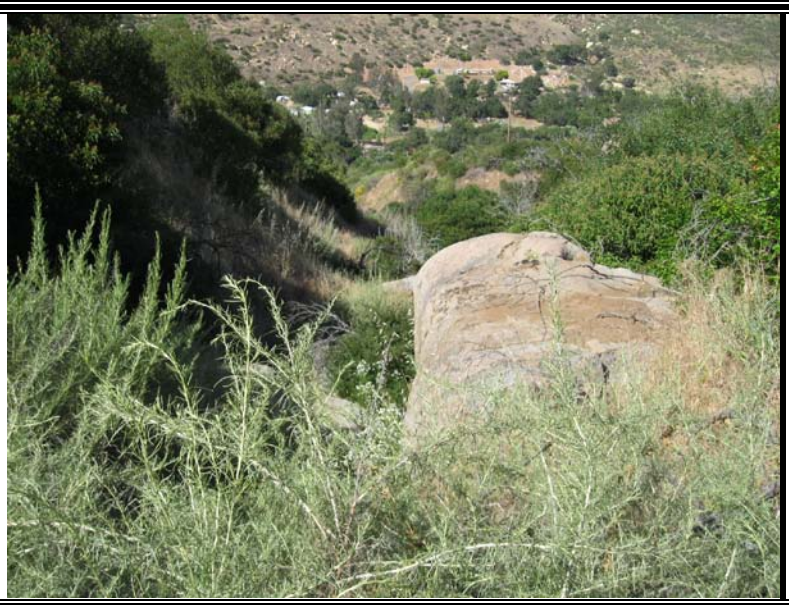
Photograph 5 Feature 7, view facing southeast.

Photograph 6 Feature 8, view facing northwest.

Photograph 7 Feature 9, view facing north.

Photograph 8 Feature 10, view facing south.

Photograph 9 Feature 11, view facing northeast.



Photograph 10 Feature 12, view facing northeast.

Photograph 11 Feature 12, view facing southwest.